UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/917,763	07/31/2001	Mark Hornick	19111.0024	2795

23517 7590 01/29/2004

SWIDLER BERLIN SHEREFF FRIEDMAN, LLP
3000 K STREET, NW
BOX IP
WASHINGTON, DC 20007

EXAMINER	
FLEURANTIN, JEAN B	

ART UNIT	PAPER NUMBER
2172	

DATE MAILED: 01/29/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/917,763	HORNICK, MARK	
	Examiner	Art Unit	
	Jean B Fleurantin	2172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 November 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-120* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,13-31,43-61,73-91 and 103-120* is/are rejected.

7)☒ Claim(s) *2-12,32-42,62-72 and 92-102* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. Claims 1-120 remain pending for examination.

Response to Arguments

2. Applicant's arguments filed on November 13, 2003, with respect to claims 1-120 have been fully considered but they are not persuasive because of the following reasons:

In response to applicant's argument on pages 3 and 8, that "Claim 1 recites determining if requests for data mining processing can be processed. Vanderveldt does not disclose or suggest determining if requests for data mining processing can be processed." It is respectively submitted that Vanderveldt reference discloses the claimed invention as follow: Vanderveldt teaches a data mining agent executing in a computer system, a method of data mining as claimed comprises the steps of examining a request queue comprising at least one request for data mining processing (thus, the destination data sites are evaluated to determine if relevant information is present in the destination data site, if relevant information is present, this data site is assigned a relevance score and presented to the user requesting the query, see cols. 2-3, lines 67-4);

determining if the at least one request for data mining processing can be processed (thus, the dynamic search engine 100 data mines the specific profile to determine what other related topics of interest would be relevant and of greatest interest to the user, see col. 8, lines 46-50);

accepting the at least one request for data mining processing if it is determined that the at least one request for data mining processing can be processed (thus, once the user has entered the data, the specific profile is output to data mining search engine twelve, the dynamic search

engine 100 data mines the specific profile to determine what other related topics of interest would be relevant and of greatest interest to the user, see col. 8, lines 44-50); and

processing the accepted request for data mining processing in the computer system (thus, once the user has received the information they will be asked if they would like to see more information, each time the user requests additional information it will be presented subsequent to the most recent, most relevant information previously presented, see col. 9, lines 31-34).

Further, in column 4, lines 19-23, Vanderveldt teaches data mining is the process of discovering useful patterns and applying a neural network.

In response to applicant's argument that on pages 15 and 16, that "The Applicant respectfully submits that the present invention according to claims 20, 22, 50, 52, 80, 82, 110 and 112 are not obvious in view of Vanderveldt. Even if Vandervldt were modified as suggested by the Examiner, the result still would not be the present invention as claimed." The examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Interpretation of Claims-Broadest Reasonable Interpretation, see MPEP 2111. During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecussion and broad interpretation by the examiner reduces the possibility that the

claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969).

Therefore, the rejection in last Office Action maintains.

Claim Rejections - 35 USC § 102

A. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 13-19, 21, 23-31, 43-49, 51, 53-61, 73-79, 81, 83-91, 103-109, 111 and 113-120 are rejected under 35 U.S.C. 102(2) as being anticipated by U.S. Patent No. 6,266,668 issued to Vanderveldt et al. ("hereinafter Vanderveldt").

As per claims 1, 61 and 91, Vanderveldt teaches a data mining agent executing in a computer system, a method of data mining as claimed comprises the steps of examining a request

queue comprising at least one request for data mining processing (thus, the destination data sites are evaluated to determine if relevant information is present in the destination data site, if relevant information is present, this data site is assigned a relevance score and presented to the user requesting the query, see cols. 2-3, lines 67-4);

determining if the at least one request for data mining processing can be processed (thus, the dynamic search engine 100 data mines the specific profile to determine what other related topics of interest would be relevant and of greatest interest to the user, see col. 8, lines 46-50);

accepting the at least one request for data mining processing if it is determined that the at least one request for data mining processing can be processed (thus, once the user has entered the data, the specific profile is output to data mining search engine twelve, the dynamic search engine 100 data mines the specific profile to determine what other related topics of interest would be relevant and of greatest interest to the user, see col. 8, lines 44-50); and

processing the accepted request for data mining processing in the computer system (thus, once the user has received the information they will be asked if they would like to see more information, each time the user requests additional information it will be presented subsequent to the most recent, most relevant information previously presented, see col. 9, lines 31-34).

As per claims 13 and 103, in addition to the discussion in claim 1, Vanderveldt further teaches determining that the computer system is overloaded, (see col. 8, lines 25-27);

querying at least one other computer system to determine whether the at least one other computer system can complete a data mining processing task being performed on the computer system faster than the computer system (thus, the database query scripts direct the simple

searching and querying of the databases, access custom data-mining solutions developed for some of the databases and allow visualization for exploration of the databases, see col. 10, lines 16-19);

determining whether the at least one other computer system can complete the data mining processing task being performed on the computer system faster than the computer system (thus, data-mining 'tools' are discrete and specific, certain models are appropriate for certain tasks, when explanation of a particular result is important 'as in credit approval/rejections' and the available data supports the generation/formulation of rules an expert or fuzzy logic system might be appropriate, when optimization of a particular quantity is important, a genetic algorithm or another evolutionary algorithm might be more useful, when prediction/estimation is important, the neural network training algorithm might be used, see col. 4, lines 28-38).

As per claims 14, 44, 74 and 104, Vanderveldt teaches the method, wherein the migrating step comprises the steps of reserving the at least one other computer system for migration, (see col. 10, lines 66-67);

interrupting and checkpointing the data mining processing task on the computer system, (see col. 4, lines 29-33); and

enqueueing a request to the at least one other computer system for continued processing of the data mining processing task, (see cols. 2-3, lines 67-4).

As per claims 15, 45, 75 and 105, Vanderveldt teaches the method, wherein the step of determining that the computer system is overloaded comprises the step of determining that the

computer system is overloaded if a utilization of a processor of the computer system is greater than a predefined threshold for a predefined time, (see col. 4, lines 60-65).

As per claims 16, 46, 76 and 106, Vanderveldt teaches the method, wherein the querying step comprises the step of generating an estimate of a time to complete the data mining processing task, (see col. 9, lines 44-50).

As per claims 17, 27, 47, 57, 77, 87, 107 and 117, Vanderveldt teaches the method, wherein the generating step comprises the steps of estimating an amount of processing that must be performed to complete the data mining processing task, (see cols. 2-3, lines 67-4);

estimating a processor utilization that will be available to process the data mining processing task, (see col. 4, 34-36); and

estimating a time to complete the data mining processing task based on the estimate of the amount of processing that must be performed, the estimate of available processor utilization, and a speed of the processor, (see col. 9, lines 44-50).

As per claims 18, 48, 78 and 108, the limitations of claims 18 and 108 are rejected in the analysis of claim 8, and these claims are rejected on that basis.

As per claims 19, 49, 79 and 109, Vanderveldt teaches the method, wherein the step of determining whether the at least one other computer system can complete a data mining processing task being performed on the computer system faster than the computer system (see

cols. 2-3, lines 67-4) as claimed comprises the step of estimating a time to complete the data mining processing task for the at least other computer system based on the estimate of the amount of processing that must be performed to complete the data mining processing task, speed of the at least one other computer system, (see col. 9, lines 44-50).

As per claims 21, 51, 81 and 111, Vanderveldt teaches the method, wherein the querying step further comprises the step of transmitting to the at least one other computer system the estimate of the amount of processing that must be performed to complete the data mining processing task, (see col. 9, lines 44-50); and

receiving from the at least one other computer system an estimate of a time to complete the data mining processing task for the at least one other computer system, (see col. 4, 34-36).

As per claim 23, in addition to the discussion in claim 1, Vanderveldt further teaches determining a remaining cost of completing processing of a data mining processing task being processed by the computer system (thus, data-mining 'tools' are discrete and specific, certain models are appropriate for certain tasks, when explanation of a particular result is important 'as in credit approval/rejections' and the available data supports the generation/formulation of rules an expert or fuzzy logic system might be appropriate, when optimization of a particular quantity is important, a genetic algorithm or another evolutionary algorithm might be more useful, when prediction/estimation is important, the neural network training algorithm might be used, see col. 4, lines 28-38);

determining whether the at least one other computer system can complete processing of the data mining processing task at a lower cost than the computer system, (see col. 4, lines 28-34).

As per claims 24, 54, 84 and 114, in addition to the discussion in claims 1 and 23, Vanderveldt further teaches determining that the processor utilization of the computer system is greater than a predefined amount higher than the processor utilization of the at least one other computer system, (see col. 8, 46-50).

As per claims 25, 55, 85 and 115, the limitations of claims 25, 55, 85 and 115 are rejected in the analysis of claim 17, and these claims are rejected on that basis.

As per claims 26, 56, 86 and 116, Vanderveldt teaches the method, wherein the remaining cost of completing processing of a data mining processing task is determined based on a time to 3 complete processing of the data mining processing task and on additional factors, 4 including actual costs of use of the computer system, (see col. 4, lines 28-38).

As per claims 28, 58, 88 and 118, Vanderveldt teaches the method further comprises the step of estimating additional factors, including actual costs of use of the computer system, (see col. 4, lines 28-34).

As per claims 29, 59, 89 and 119, Vanderveldt teaches the method, wherein the step of determining whether the at least one other computer system can complete processing of the data mining processing task at a lower cost than the computer system comprises the step of soliciting a bid for completing processing of the data mining processing task from the at least one other computer system, (see col. 4, lines 34-38).

As per claims 30, 60, 90 and 120, in addition to the discussion in claim 29, Vanderveldt further teaches transmitting a request for a bid to the at least one other computer system, the request for the bid including information relating to the amount of processing that must be performed to complete the data mining processing task, (see col. 4, lines 28-38).

As per claim 31, in addition to the discussion in claim 1, Vanderveldt further teaches a processor operable to execute computer program instructions, (see col. 2, lines 60-63);

a memory operable to store computer program instructions executable by the processor, (see col. 2, lines 4-10).

As per claims 43 and 73, in addition to the discussion in claim 13, Vanderveldt further teaches a processor operable to execute computer program instructions, (see col. 2, lines 60-63);

a memory operable to store computer program instructions executable by the processor, (see col. 2, lines 4-10).

As per claims 53, 83 and 113, in addition to the discussion in claim 1, Vanderveldt further teaches determining a remaining cost of completing processing of a data mining processing task being processed by the computer system (thus, data-mining 'tools' are discrete and specific, certain models are appropriate for certain tasks, when explanation of a particular result is important 'as in credit approval/rejections' and the available data supports the generation/formulation of rules an expert or fuzzy logic system might be appropriate, when optimization of a particular quantity is important, a genetic algorithm or another evolutionary algorithm might be more useful, when prediction/estimation is important, the neural network training algorithm might be used, see col. 4, lines 28-38);

determining whether the at least one other computer system can complete processing of the data mining processing task at a lower cost than the computer system, (see col. 4, lines 28-36).

Claim Rejections - 35 USC § 103

B. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 20, 22, 50, 52, 80, 82, 110 and 112 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,266,668 issued to Vanderveldt et al. ("Vanderveldt").

As per claims 20, 22, 50, 52, 80, 82, 110 and 112, in addition to the discussion in claim 1, Vanderveldt does not explicitly indicate estimating a time to availability of the computer system; exchanging an estimate of a time to availability of the at least one other computer system; and comparing the time to availability. However, Vanderveldt implicitly indicates as use grows a search response time per use can be estimated, this will enable projection of the number of servers necessary per use, see col. 9, lines 46-51. It would have been obvious to a person of ordinary skill in the art to modify the teaching of Vanderveldt with estimating a time to availability of the computer system; exchanging an estimate of a time to availability of the at least one other computer system; and comparing the time to availability. Such modification would allow the teachings of Vanderveldt to provide a method for dynamic data mining and on line community data sites are evaluated to determine if relevant information is present in the destination data site, (see cols. 2-3; lines 66-2).

Allowable Subject Matter

C. Claims 2-12, 32-42, 62-72 and 92-102 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record does not teach or suggest in combination with other elements,

wherein the determining step comprises the steps of determining if an algorithm required to process the at least one request for data mining processing is supported by the computer system;

if the algorithm required to process the at least one request for data mining processing is supported, determining whether the computer system is available for additional processing;

if the computer system is not available for additional processing, determining whether the computer system will become available for additional processing before other computer systems that might process the at least one request;

if the computer system is available for additional processing, or if the computer system will become available for additional processing before other computer systems that might process the at least one request, determining whether the computer system will be able to complete requested processing in an allotted time; and

if the computer system will be able to complete the requested processing in the allotted time, determining that the computer system can process the at least one request for data mining processing as recited in claims 2.

Claims 3-12 further limit the subject matter of claim 2.

The prior art of record does not teach or suggest in combination with other elements,

wherein the determining step comprises the steps of determining if an algorithm required to process the at least one request for data mining processing is supported by the computer system;

if the algorithm required to process the at least one request for data mining processing is supported, determining whether the computer system is available for additional processing;

if the computer system is not available for additional processing, determining

whether the computer system will become available for additional processing before other computer systems that might process the at least one request;

if the computer system is available for additional processing, or if the computer system will become available for additional processing before other computer systems that might process the at least one request, determining whether the computer system will be able to complete requested processing in an allotted time; and

if the computer system will be able to complete the requested processing in the allotted time, determining that the computer system can process the at least one request for data mining processing as recited in claims 32.

Claims 33-42 further limit the subject matter of claim 32.

The prior art of record does not teach or suggest in combination with other elements,

wherein the determining step comprises the steps of determining if an algorithm required to process the at least one request for data mining processing is supported by the computer system;

if the algorithm required to process the at least one request for data mining processing is supported, determining whether the computer system is available for additional processing;

if the computer system is not available for additional processing, determining whether the computer system will become available for additional processing before other computer systems that might process the at least one request;

if the computer system is available for additional processing, or if the computer system will become available for additional processing before other computer systems that might

process the at least one request, determining whether the computer system will be able to complete requested processing in an allotted time; and

if the computer system will be able to complete the requested processing in the allotted time, determining that the computer system can process the at least one request for data mining processing as recited in claims 62.

Claims 63-72 further limit the subject matter of claim 62.

The prior art of record does not teach or suggest in combination with other elements,

wherein the determining step comprises the steps of determining if an algorithm required to process the at least one request for data mining processing is supported by the computer system;

if the algorithm required to process the at least one request for data mining processing is supported, determining whether the computer system is available for additional processing;

if the computer system is not available for additional processing, determining whether the computer system will become available for additional processing before other computer systems that might process the at least one request;

if the computer system is available for additional processing, or if the computer system will become available for additional processing before other computer systems that might process the at least one request, determining whether the computer system will be able to complete requested processing in an allotted time; and

if the computer system will be able to complete the requested processing in the allotted time, determining that the computer system can process the at least one request for data mining processing as recited in claims 92.

Claims 93-102 further limit the subject matter of claim 92.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B Fleurantin whose telephone number is 703-308-6718. The examiner can normally be reached on 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Breene John E can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Jean Bolte Fleurantin

2004-01-22

SHAHID ALAM
PRIMARY EXAMINER